

Amendments to the Claims:

1. (Previously presented) A process for the preparation of the α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[4-pyridin-3-yl]pyrimidin-2-ylamino]phenyl]benzamide comprising:
 - a) carrying out an acid addition reaction using not more than 0.99 equivalents of methanesulfonic acid per 1 equivalent of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[4-pyridin-3-yl]pyrimidin-2-ylamino]phenyl]benzamide, in a solvent selected from the group consisting of C₂-C₆ aliphatic alcohols and the mixtures thereof, optionally with the addition of a C₁-C₄ aliphatic alcohol;
 - b) optionally adding a solvent selected from the group consisting of esters formed from a C₁-C₄ aliphatic alcohol and formic acid, acetic acid, or propionic acid;
 - c) optionally inoculating the reaction mixture with the α -crystal form;
 - d) stirring the reaction mixture for the time necessary for crystallization of the α -crystal form; and
 - e) isolating the α -crystal form from the reaction mixture.
2. (Original) The process according to claim 1 in which the acid addition reaction is carried out using from 0.95 to 0.99 equivalents of methanesulfonic acid per 1 equivalent of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[4-pyridin-3-yl]pyrimidin-2-ylamino]phenyl] benzamide.
3. (Previously presented) The process according to claim 1, in which the acid addition reaction is carried out in an alcohol selected from the group consisting of *n*-propyl alcohol, isopropyl alcohol, *n*-butyl alcohol, *tert*-butyl alcohol, and the mixtures thereof with ethyl alcohol.

4. (Previously presented) The process according to claim 1, in which the acid addition reaction is carried out in a mixture of solvents containing from 0 to 50% of ethyl alcohol and from 50 to 100% of n-propyl alcohol (v/v).
5. (Previously presented) The process according to claim 1 in which the acid addition reaction is carried out in the mixture of solvents containing from 0 to 50% of ethyl alcohol and from 50 to 100% of isopropyl alcohol (v/v).
6. (Previously presented) The process according to claims 1 in which the acid addition reaction is carried out in a mixture of solvents containing from 0 to 50% of ethyl alcohol and from 50 to 100% of n-butyl alcohol (v/v).
7. (Previously presented) The process according to claims 1 in which the acid addition reaction is carried out in a mixture of solvents containing from 0 to 50% of ethyl alcohol and from 50 to 100% of *tert*-butyl alcohol (v/v).
8. (Previously presented) A process for the preparation of the α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[4-pyridin-3-yl]pyrimidin-2-ylamino]phenyl]benzamide comprising:
 - a) carrying out an acid addition reaction using 1 equivalent of methanesulfonic acid per 1 equivalent of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[4-pyridin-3-yl]pyrimidin-2-ylamino]phenyl]benzamide in the ethyl alcohol, optionally with the addition of a C₁-C₄ aliphatic alcohol;
 - b) adding a solvent selected from the group consisting of esters formed from a C₁-C₄ aliphatic alcohol and formic acid, acetic acid, or propionic acid;

- c) inoculating the reaction mixture with the α -crystal form;
- d) stirring the reaction mixture for the time necessary for crystallization of the α -crystal form; and
- e) isolating the α -crystal form from the reaction mixture.

9. (Previously presented) The process according to claim 8 wherein said C₁-C₄ aliphatic alcohol is methyl alcohol or isopropyl alcohol, and the proportion of said C₁-C₄ aliphatic alcohol to other solvents present in the reaction mixture do not exceed 55% (v/v).

10. (Previously presented) The process according to claim 1 in which the acid addition reaction is carried out with stirring while maintaining the internal temperature of the reaction mixture within the range from room temperature to boiling temperature.

11. (Currently amended) The process according to claim 1 in which said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide isolated from the reaction mixture is essentially free of the β -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide and any other crystalline solids as determined by either X-ray powder diffraction, or IR, or DSC, wherein if X-ray powder diffraction is used to determine the absence of the β -crystal form, the X-ray powder diffraction spectrum does not contain peaks of relative intensity over 20% characteristic for the β -crystal form at the 2 θ angles of about 9.7, about 17.4, and about 19.9 $^{\circ}$, and if IR is used to determine the absence of the β -crystal form, the IR spectrum does not contain peaks characteristic for the β -crystal form of about 3336, 1656, 1596, and 1482 cm⁻¹.

12. (Previously presented) The process according to claim 1 in which said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide isolated from the reaction mixture shows an X-ray powder diffraction pattern that is characterized by having peaks at 2θ angles of approximately: 4.9; 18.6; 19.1; 23.2 and 28.6°.
13. (Previously presented) The process according to claim 1 in which said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide isolated from the reaction mixture shows an X-ray powder diffraction pattern that is characterized by having peaks of relative intensity over 20% at 2θ angles of approximately: 10.5; 14.9; 16.5; 17.7; 18.1; 18.6; 19.1; 21.3; 21.6; 22.7; 23.2; 23.8; 24.9; 27.4; 28.0 and 28.6°, the relative intensity being determined with respect to the most intense peak by peak height, the peak height expressing a number of counts per second.
- 14-23. (Canceled).
24. (Previously presented) The process according to claim 2, in which the acid addition reaction is carried out in an alcohol selected from the group comprising *n*-propyl alcohol, isopropyl alcohol, *n*-butyl alcohol, *tert*-butyl alcohol and the mixtures thereof with ethyl alcohol.
25. (Previously presented) The process according to claim 2 in which the addition reaction is carried out in the mixture containing from 0 to 50% of ethyl alcohol and from 50 to 100% of *n*-propyl alcohol (v/v).

26. (Currently amended) The process according to claim 2 in which said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide isolated from the reaction mixture is essentially free of the β -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide and any other crystalline solids as determined by either X-ray powder diffraction, or IR, or DSC wherein if X-ray powder diffraction is used to determine the absence of the β -crystal form, the X-ray powder diffraction spectrum does not contain peaks of relative intensity over 20% characteristic for the β -crystal form at the 2θ angles of about 9.7, about 17.4, and about 19.9°, and if IR is used to determine the absence of the β -crystal form, the IR spectrum does not contain peaks characteristic for the β -crystal form of about 3336, 1656, 1596, and 1482 cm^{-1} .
27. (Previously presented) The process according to claim 2 in which said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide isolated from the reaction mixture shows an X-ray powder diffraction pattern that is characterized by having peaks at 2θ angles of approximately: 4.9; 18.6; 19.1; 23.2 and 28.6°.
28. (Previously presented) The process according to claims 2 in which said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide isolated from the reaction mixture shows an X-ray powder diffraction pattern that is characterized by having peaks at 2θ angles of approximately: 10.5; 14.9; 16.5; 17.7; 18.1; 18.6; 19.1; 21.3; 21.6; 22.7; 23.2; 23.8; 24.9; 27.4; 28.0 and 28.6°.

29. (Previously presented) The process according to claim 8 in which the acid addition reaction is carried out with stirring while maintaining the internal temperature of the reaction mixture within the range from room temperature to boiling temperature.
30. (Currently amended) The process according to claim 8 in which said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide isolated from the reaction mixture is essentially free of the β -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide and any other crystalline solids as determined by either X-ray powder diffraction, or IR, or DSC, wherein if X-ray powder diffraction is used to determine the absence of the β -crystal form, the X-ray powder diffraction spectrum does not contain peaks of relative intensity over 20% characteristic for the β -crystal form at the 2θ angles of about 9.7, about 17.4, and about 19.9 $^{\circ}$, and if IR is used to determine the absence of the β -crystal form, the IR spectrum does not contain peaks characteristic for the β -crystal form of about 3336, 1656, 1596, and 1482 cm^{-1} .
31. (Previously presented) The process according to claim 8 in which said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino]phenyl]benzamide isolated from the reaction mixture shows an X-ray powder diffraction pattern that is characterized by having peaks at 2θ angles of approximately: 4.9; 18.6; 19.1; 23.2 and 28.6 $^{\circ}$.
32. (Previously presented) The process according to claim 8 in which said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-

ylamino)phenyl]benzamide isolated from the reaction mixture shows an X-ray powder diffraction pattern that is characterized by having peaks of relative intensity over 20% at 2 θ angles of approximately: 10.5; 14.9; 16.5; 17.7; 18.1; 18.6; 19.1; 21.3; 21.6; 22.7; 23.2; 23.8; 24.9; 27.4; 28.0 and 28.6°, the relative intensity being determined with respect to the most intense peak by peak height, the peak height expressing a number of counts per second.

33. (New) The process of claim 1 wherein said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide isolated from the reaction mixture contains not more than 2% w/w of the β -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide.

34. (New) The process of claim 33 wherein said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide isolated from the reaction mixture contains not more than 1% w/w of the β -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide.

35. (New) The process of claim 2 wherein said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide isolated from the reaction mixture contains not more than 2% w/w of the β -crystal form of the methanesulfonic acid addition salt of 4-(4-

methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide.

36. (New) The process of claim 35 wherein said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide isolated from the reaction mixture contains not more than 1% w/w of the β -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide.

37. (New) The process of claim 8 wherein said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide isolated from the reaction mixture contains not more than 2% w/w of the β -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide.

38. (New) The process of claim 37 wherein said α -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide isolated from the reaction mixture contains not more than 1% w/w of the β -crystal form of the methanesulfonic acid addition salt of 4-(4-methylpiperazin-1-ylmethyl)-N-[4-methyl-3-[(4-pyridin-3-yl)pyrimidin-2-ylamino)phenyl]benzamide.